

22/72 PLUSPAT - (C) QUESTEL-ORBIT

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TI - (A1) A METHOD FOR MAINTAINING A SEQUENCE OF EVENTS FUNCTION DURING  
**FAILOVER** IN A REDUNDANT **MULTIPLE** LAYER SYSTEM

OTI - (A1) METHODE PERMETTANT DE MAINTENIR UNE SEQUENCE D'EVENEMENTS  
 FONCTIONS LORS D'UNE DEFAILLANCE D'UN SYSTEME REDONDANT A COUCHES  
 MULTIPLES

LA - ENGLISH (ENG)

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PR - US4292393 19930406 [1993US-0042923]

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 (EP); GR (EP); IE (EP); IT (EP); LU (EP); MC (EP); NL (EP); PT (EP);  
 SE (EP)

DT - Basic

CT - Cited in the search report  
 - EP434532(A) (Cat. X); EP351109(A) (Cat. A)  
 - See also references of EPA 0707722

STG - (A1) Publ. Of int. Appl. With int. Search rep

AB - In a process control system having a redundant multi-layer  
 hierarchical **structure**, each **node** of a layer being redundant sequence  
 of events inputs are received from field devices by an input/output  
 processor (IOP). The IOP is a digital input sequence of events (DISOE)  
 IOP, the IOP being the lowest layer of the hierarchical **structure**. The  
 IOP interfaces with a controller at the next layer of the hierarchy. A  
 method for reliably maintaining a sequence of events function during a  
**failover** of any of the redundant **nodes**, comprising the steps of  
 maintaining a log, a circular list, by the local DISOE. The circular  
 list is a rolling log of all sequence of events data for a predefined  
 time period. When a **failover** occurs, the new primary **commands** an event  
 recovery. The event recovery process freezes the log and uses the  
 information in the log to recreate the events data. The freeze  
 operation inhibits background purge activity for the log thereby  
 avoiding the deletion of information past the defined time. New events  
 data is still entered in the log. Once the log has been processed the  
 freeze operation is negated. The recreated data is transmitted to the  
 controller in accordance with a predefined protocol, thereby avoiding  
 the loss of any events data as a result of the **failover**.